threshold TH (i.e., when the control signal C4 reaches an active state), and the packet deleting device 20 deletes a voice packet judged as voice-absence.

At this time, the packet deleting device 20 not only evaluates and deletes a voice packet immediately before being given to the voice decoder 17 (i.e., a voice packet (PI) occupying the top position), but also scans a plurality of voice packets stored in the buffer memory 32 by the use of the scanning signal SC, and determines a to-be-deleted packet on the basis of a voice presence/absence judgment result DC for a packet before and after each packet and on the basis of the ratio of voice-absence packets.

Generally, a device that decodes a voice by a packet unit is needed to decode packets at a fixed time interval that corresponds to the decoding unit time. However, the application of this embodiment makes it possible to precedently process the voice presence/absence judgment of the packets and the deletion of the packets. In other words, they can be processed when the load of a processor is low, and the operating ratio of the processor can be improved.

Additionally, when voice packets PI to be deleted are determined, the packet deleting device 20 functions so that the to-be-deleted voice packets PI can disperse without succession on a queue as completely as possible, and a necessary number (deletion number) of voice packets can be deleted while deleting the voice packets judged as voice-

absence as fully as possible.

However, cases will occur in which all these conditions cannot be satisfied according to circumstances. For example, in one of the cases, a control signal C4 supplied from the buffer device 16 has reached an active state because the queue length has exceeded the higher threshold TH, while a judgment result DC shows that all of the voice packets P1 to P102 are voice-presence.

In this case, a solution is to advance the processing while regarding a packet that seems more like voice-absence as a voice-absence packet. Even in this case, it is necessary to control them so as not to consecutively arrange the voice-absence-like voice packets without succession on a queue.

As a result of this deletion, a packet less similar to a voice-presence packet, described later, (i.e., a packet like a voice-absence packet) might remain at a position on the queue, and a packet higher in likeness degree to voice presence than the remaining packet lower in likeness degree to voice presence might be deleted from a position on the queue. However, when seen as the entire queue, it is very likely that the quality of voice output obtained when decoded will improve even greater than in a case where the deletion of packets consecutive on a queue is allowed.

Herein, the term "deletion" means the act of bringing a region on the buffer memory 32 where a voice packet PI to be deleted has been stored into a writable state. Therefore,

generally, the control signal C5 in deletion specifies one memory address or a plurality of memory addresses from among a great number of memory addresses on the buffer memory 32 (note that one voice packet PI is written in a region specified by one memory address), and brings a memory region (memory regions) specified by the memory address (memory addresses) into a writable state.

The voice presence/absence judging device 21 that receives a scanning signal SC from the packet deleting device 20 decodes a packet inquired by the packet deleting device 20 (i.e., a packet contained in the scanning signal SC) once, or extracts voice power information therefrom, and thereby judges whether the packet belongs to the state of voice presence or belongs to the state of voice absence.

Generally, a background noise intensity is estimated from a voice power record, thereafter an estimated S/N ratio (ratio of signal to noise) is calculated therefrom, and voice presence/absence is judged from this estimated S/N ratio.

The complementary-packet inserting device 19 that receives a control signal C2 from the buffer device 16 generates and outputs a predetermined complementary packet PP that contains voice data that emits a slight noise near voice absence as a decoded voice when the control signal C2 reaches an active state.

The complementary packet PP output by the complementary-packet-inserting device 19 in this embodiment